Appl. No.: 10/613,597
Amdt. Dated: 12/18/2006

Attorney Docket: FS01-003
Reply to Office action of 12/07/2006

In the Specification:

Please replace paragraph [0017] with the following amended paragraph:

[0017]   Japanese Patent Laid-Open No. 1-265739 (Kiyoyuki, et al.) provides a system for minimizing the effect of reception level fluctuation and phase fluctuation due to fading. The transmitter sends transmission information ~~converted~~ encoded with error detection and correction codes. The receiver decodes the received information by plural antennas. The system performs an error detection and correction on the received information and based on the amount of errors present in the received information selects the received information from the antenna with least error among the received information sets from each of the antennas.

Please replace paragraph [0023] with the following amended paragraph:

[0023]   The diversity receiver system receives the coded data modulated broad cast signal from a transmission channel. The transmission channel is characterized by multiple transmission paths having variable ~~transmission time~~ transmission times and variable attenuation characteristics causing multiple copies of the coded data modulated broadcast signal. The diversity receiver system has a signal acquisition device in communication with the transmission channel for reception of the multiple copies of the coded data modulated broadcast signal. The signal acquisition device evaluates signal characteristics of one or more copies

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of the multiple copies of the coded data modulated broadcast signal,

extracts the coded data, control signals, and locking signals from the one

or more copies of the multiple copies of the coded data. A diversity circuit

is in communication with the signal acquisition device to receive the signal

5   characteristics and the coded data, the control signals, and locking

signals, the diversity circuit selecting from the signal characteristics, the

control signals, and the locking signals, one of the copies of the coded

data modulated broadcast signals. The diversity receiver has an error

evaluation circuit in communication with the diversity circuit to receive the

10   coded data from the selected copy of the coded data modulated broadcast

signal. The error evaluation circuit evaluates the coded data signal for

errors and providing an error signal to the diversity circuit indicating an

error state of the selected data, wherein the diversity circuit selects a

second copy of the coded data modulated broadcast signal.

15   Please replace paragraph [0036] with the following amended paragraph:

[0036]   Fig. 9 is a flow chart of of a of a first embodiment the method for

receiving and recovering the encoded data of this invention.

Please replace paragraph [0039] with the following amended paragraph:

[0039]   Fig. 12 is a flow chart of of a of a second embodiment the method

20   for receiving and recovering the encoded data of this invention.

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Please replace paragraph [0042] with the following amended paragraph:

[0042]   The diversity receiver **200** acquires the modulated broadcast signal **150** through multiple receiving transducers. The receiving transducers **200** may include ~~antenna~~ antennae for receiving RF broadcast signals or photodiodes for receiving light broadcast signals. The diversity receiver then extracts the encoded data frame, acquires the locking signal to extract the digital data.

Please replace paragraph [0045] with the following amended paragraph:

[0045]   The transducers may be provided a selection priority that ensures that a certain transducer is selected initially. The transducer or receiver selection priority is modified by the diversity circuit to ensure that the selection a transducer or receiver ~~that~~ ensures capturing the correct digital data or at least capturing correctable digital data.

Please replace paragraph [~~0042~~0046] with the following amended paragraph:

[0046]   Refer now to Fig. 4 for a discussion of the operation of the transmitter **100**. The transmitter **100** acquires the digital data **105** to be transmitted. The digital data **105** may, for example, be the digitally encoded audio signals such as provided by compact disk read only memory. The digital data **105** is received and retained by the data input register **110**. A data clock signal **112** from the synchronization clock

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~~circuit 130 110~~ circuit **130**. An error correction code generator **115**

extracts the digital data from the data input register **110** and creates an

error correction code that is to be appended to the digital data. The digital

data with the appended error correction code is transferred to the

5   interleave circuit **120**. The interleave circuit **120** rearranges the order of

the data segments (bytes or words) to separate contiguous data

segments. This insures that these data segments will be transmitted in

non-sequential order to be separated in time such that the likelihood of

errors destroying the digital data is minimized.

10   Please replace paragraph **[0048]** with the following amended paragraph:

[0048]   The format of the encoded digital data frame is shown in Fig. 6. A

digital data frame **190** consists of the locking signal **191**. The locking

signal **191** includes the synchronization signal **192** and the start signal

194. The optional stop signal (not shown) ~~would for~~ indicates the ending

15   message of the encoded data frame. The data interleaves **195a**, **195b**,

~~and 195c~~ and **195n** are then serially concatenated after the locking signal

191. The encoded digital data frames are then serially joined to form the

transmission.

Please replace paragraph **[0051]** with the following amended paragraph:

20   [0018]   As is known in the art, the transmitter **100** may include a digital

signal processor. The digital signal processor, being a computing system,

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executes functions and processes being programs stored on data storage

medium for execution by the method shown in Fig. 5. The digital frame

data is acquired (Box **155**) and retained. The process continues by

generating an error correction code (Box **160**) that is to be included with

5   the digital frame data. The digital frame data with the included error

correction code is ~~the then~~ then rearranged to interleave (Box **165**) the

digital frame data to separate contiguous data. As described above, this

allows correction of errors that may occur to contiguous transmitted data.

The digital data frames are then serialized (Box **170**) and formed (Box

10   **175**) into frames by the concatenation of the locking signal to the digital

frame data with the included error correction codes. The locking signal as

described above includes the synchronization signal, the start signal, and

the optional stop signal. The serialized data frames then modulate (Box

180) a transmit signal. The modulated transmit signal is then sent (Box

15   **185**) to a transmitting transducer for broadcast to the environment.